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EXAMINER

DELGADO, MICHAEL A

ART UNIT	PAPER NUMBER
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2144

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/992,511	Applicant(s) RABBERS ET AL.	
	Examiner Michael S. A. Delgado	Art Unit 2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9,11-19,21-29,31 and 33-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9,11-19,21-29,31 and 33-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/12/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/12/2005 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments include the failure of previously applied art to expressly disclose receiving, from the server, the filtered data that has changed since the previous synchronization operation to update the second database as well as the data being a subset of data extracted from a main database based on visibility rules and filter information, the subset representing a part of the extracted data that has changed since a previous synchronization operation by the server (see Applicant's response, dated 12 December 2005, Page 19, 3rd paragraph and page 21, 1st paragraph). It is evident from the detailed mappings found in the ~~above~~ rejection(s) that Huang-Boothby disclosed this functionality (see Boothby, paragraph 44-46 and Huang, Huang, Col. 13, lines 35-50). Further, it is clear from the numerous teachings (previously and currently cited) that the provision for receiving, from the server, the filtered data that has changed since the previous synchronization operation to update the second database as well as the data being a subset of data extracted from a main database based on visibility rules

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and filter information, the subset representing a part of the extracted data that has changed since a previous synchronization operation by the server, was widely implemented in the networking art. Thus, Applicant's arguments drawn toward distinction of the claimed invention and the prior art teachings on this point are not considered persuasive.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-9, 11-19, 21-29, 31, 33-41, 43-46, 48-51, 53-56, 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,477,543 by Huang in view of US Patent Application Publication No. 2001/0005849 by Boothby et al.

In claim 1, Huang teaches about a method, comprising:

establishing a connection between a server "Replica Host" and a synchronization client "Synchronization Proxy" associated with a handheld device "Client", the server having a first database (data store in 402) and the handheld device having a second database (data store in 202), the handheld device having an application to allow a user to access the second database, wherein the synchronization client to use the connection in a synchronization operation of the second database and the first database (Huang Col 1, lines 50-60) (Huang Col 7, lines 25-30)

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(Huang Col 7, lines 45-55) (Huang Col 8, lines 10-20) (Huang Col 8, lines 55-65) (Huang Col 9, lines 29-33);

receiving, from the server, first information indicative of a structure “format” of the first database (Huang Col 8, lines 20-35) (Huang Col 13, lines 35-45); This information is embedded in the sync logic that is past to synchronization proxy.

Receiving, from the server, second information indicative of a version of the application from the server (Huang Col 2, lines 10-20) (Huang Col 13, lines 35-45) (Huang Col 14, lines 20-30); This information is embedded in the sync logic that is past to synchronization proxy.

sending, to the server, information of transactions performed on the second database by a user via the handheld device (Huang Col 13, lines 50-60);

Receiving metadata from the server to update the application on the handheld device (Huang Col 13, lines 40-50); and (metadata information that convey the adjustment moving from a high resolution to a Handheld Palm Pilot screen).

But does not explicitly teach about the server receiving filter information that is used to create a filtered data base that contain filtered data that has changed since the previous synchronization between server and handheld device. Boothby teaches about a synchronization of databases using filters in which filter information is provided to a first database (Server or desktop). The filter information is used in the filtering operation as claimed (Paragraph 19, lines 1-8) (Paragraph 22, lines 1-6) (Paragraph 44, lines 1-8). Boothby further teaches about the filter data being synchronized base on filter information that has changed since the previous synchronization operation (Paragraph 45, lines 1-8) (Paragraph 46, lines 1-6) (Paragraph 47, lines 1-13).

The handheld devices in Huang invention are known in the art to be limited in process and storage capabilities (Huang Col 2, lines 5-15) (Huang Col 11, lines 35-45). Boothby disclosed in his invention an improvement to handheld computer operation by filtering data that has changed after previous synchronization (Paragraph 19, lines 1-8) (Paragraph 46, lines 1-6).

It would have been obvious for some one of ordinary skill at the time of the invention to improve on Huang invention by use the filtered-synchronized operation of Boothby invention to better utilize the limited memory of a handheld device.

In claim 2, Huang combined with Boothby, teaches about a method of claim 1, further comprising determining whether the structure of the first database has been updated since the previous synchronization operation (Huang Col 13, lines 50-60) (Huang Col 14, lines 20-30).

In claim 3, Huang combined with Boothby, teaches about a method of claim 2, wherein determining whether the structure of the first database has been updated since the previous synchronization operation, comprises:

comparing the first information with information stored on the handheld device that is indicative of the structure of the first database when the previous synchronization operation was performed (Huang Col 13, lines 50-60) (Huang Col 14, lines 20-30).

In claim 4, Huang combined with Boothby, teaches about method of claim 2, wherein receiving, from the server, one of the filtered data or a subset of the filtered data that has changed since the previous synchronization operation data the first database to update the second database, comprises (Covered in claim 1) (Boothby Paragraph 56, lines 1-11):

receiving, from the server, a first set of data extracted from the first database when the structure of the first database has been updated since the previous synchronization operation, the first set of data including data that has not changed in the second database since the previous synchronization operation was performed (Huang Col 10, lines 15-25) (Huang Col 13, lines 35-45) (Huang Col 13, lines 50-60). Steps involve when updating email from a Lotus Notes source.

In claim 5, Huang combined with Boothby, teaches about a method of claim 2, wherein receiving, from the server, one of the filtered data or a subset of the filtered data that has changed since the previous synchronization operation to update the second database, comprises (Boothby Paragraph 56, lines 1-11) (Covered in claim 1):

receiving, from the server, a second set of data extracted from the first database when the structure of the first database has not been updated since the previous synchronization operation, the second set of data not including data that has not changed in the second database since the previous synchronization operation was performed (Huang Col 10, lines 15-25) (Huang Col 13, lines 50-60). Steps involve when updating an address book application.

In claim 6, Huang combined with Boothby, teaches about a method of claim 1, further comprising determining whether the application has been updated since the previous synchronization operation (Huang Col 13, lines 50-60).

In claim 7, Huang combined with Boothby, teaches about a method of claim 6, wherein determining whether the application has been updated since the previous synchronization operation, comprises:

comparing the second information with information stored on the handheld device that is indicative of the version of the application when the previous synchronization operation was performed (Huang Col 13, lines 50-60) (Huang Col 14, lines 20-30).

In claim 8, Huang combined with Boothby, teaches about a method of claim 1, wherein sending, to the server, information of transactions performed on the second database, comprises:

receiving, from the server, an identifier of information of a last transaction received by the server (Huang Col 14, lines 20-30); and

sending, to the server, transaction information that includes an identifier for each transaction “update history” made after the last transaction received by the server (Huang Col 14, lines 20-30).

In claim 9, Huang combined with Boothby, teaches about a method of claim 8, wherein sending to the server information of transactions performed on the second database, further comprises:

receiving, from the server, error information when the server detects a transaction error (Huang Col 14, lines 35-40);

providing an indication of the error information to a user (Huang Col 14, lines 12-18);
and

receiving input from the user to process the transaction error (Huang Col 14, lines 12-18).

In claim 11, Huang combined with Boothby, teaches about a system, comprising:

means for establishing a connection between a server “Replica Host” and a synchronization client “Synchronization Proxy” associated with a handheld device “Client”, the server having a first database (data store in 402) and the handheld device having a second database (data store in 202), the handheld device having an application to allow a user to access the second database, wherein the synchronization client to use the connection in a synchronization operation of the second database and the first database (Huang Col 1, lines 50-60) (Huang Col 7, lines 25-30) (Huang Col 7, lines 45-55) (Huang Col 8, lines 10-20) (Huang Col 8, lines 55-65) (Huang Col 9, lines 29-33);

means for receiving, from the server, first information indicative of a structure “format” of the first database (Huang Col 8, lines 20-35) (Huang Col 13, lines 35-45); This information is embedded in the sync logic that is past to synchronization proxy.

means for receiving, from the server, second information indicative of a version of the application from the server (Huang Col 13, lines 35-45) (Huang Col 14, lines 20-30); This information is embedded in the sync logic that is past to synchronization proxy.

means for sending, to the server, information of transactions performed on the second database by a user via the handheld device (Huang Col 13, lines 50-60);

means for receiving metadata from the server to update the application on the handheld device when the application has been updated since a previous synchronization operation (Huang Col 13, lines 40-50); and (metadata information that convey the adjustment moving from a high resolution to a Handheld Palm Pilot screen).

means for sending, to the server, user-specific filter information (Covered in claim 1);

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means for identifying, in the first database, data visible to the user of the synchronization client (Covered in claim 1);

means for filtering the identified data based on the user-specific filter information (Covered in claim 1) and

means for receiving, from the server, one of the filtered data or a subset of the filtered data that has changed since the previous synchronization operation data. (Covered in claim 1).

In claim 12, Huang combined with Boothby, teaches about a system of claim 11, further comprising means for determining whether the structure of the first database has been updated since the previous synchronization operation (Huang Col 13, lines 50-60) (Huang Col 14, lines 20-30).

In claim 13, Huang combined with Boothby, teaches about a system of claim 12, wherein the means for determining, comprises:

means for comparing the first information with information stored on the handheld device that is indicative of the structure of the first database when the previous synchronization operation was performed (Huang Col 13, lines 50-60) (Huang Col 14, lines 20-30).

In claim 14, Huang combined with Boothby, teaches about a method of claim 2, wherein the means for receiving, from the server, one of the filtered data or a subset of the filtered data that has changed since the previous synchronization operation to update the second database, comprises (Boothby Paragraph 56, lines 1-11) (Covered in claim 1):

means for receiving, from the server, a first set of data extracted from the first database when the structure of the first database has been updated since the previous synchronization operation, the first set of data including data that has not changed in the second database since the previous synchronization operation was performed (Huang Col 10, lines 15-25) (Huang Col 13, lines 35-45) (Huang Col 13, lines 50-60). Steps involve when updating email from a Lotus Notes source.

In claim 15, Huang combined with Boothby, teaches about method of claim 2, wherein the means for receiving, from the server, one of the filtered data or a subset of the filtered data that has changed since the previous synchronization operation to update the second database, comprises (Covered in claim 1):

means for receiving, from the server, a second set of data extracted from the first database when the structure of the first database has not been updated since the previous synchronization operation, the second set of data not including data that has not changed in the second database since the previous synchronization operation was performed (Huang Col 10, lines 15-25) (Huang Col 13, lines 50-60). Steps involve when updating an address book application.

In claim 16, Huang combined with Boothby, teaches about a system of claim 11, further comprising means for determining whether the application has been updated since the previous synchronization operation (Huang Col 13, lines 50-60).

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In claim 17, Huang combined with Boothby, teaches about a system of claim 16, wherein the means for determining whether the application has been updated since the previous synchronization operation, comprises:

means for comparing the second information with information stored on the handheld device that is indicative of the version of the application when the previous synchronization operation was performed (Huang Col 13, lines 50-60) (Huang Col 14, lines 20-30).

In claim 18, Huang combined with Boothby, teaches about a system of claim 11, wherein the means for sending, to the server, information of transactions performed on the second database, comprises:

means for receiving, from the server, an identifier of information of a last transaction received by the server (Huang Col 14, lines 20-30); and

means for sending, to the server, transaction information that includes an identifier for each transaction “update history” made after the last transaction received by the server (Huang Col 14, lines 20-30).

In claim 19, Huang combined with Boothby, teaches about a system of claim 18, wherein the means for sending to the server information of transactions performed on the second database, further comprises:

means for receiving, from the server, error information when the server detects a transaction error (Huang Col 14, lines 35-45);

means for providing an indication of the error information to a user (Huang Col 14, lines 12-18); and

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means for receiving input from the user to process the transaction error (Huang Col 14, lines 12-18).

In claim 21, Huang combined with Boothby, teaches about a machine-readable medium having stored thereon a plurality of instructions that when executed by a computer cause the computer to perform operations comprising (Huang Col 26, lines 38-50):

establishing a connection between a server “Replica Host” and a synchronization client “Synchronization Proxy” associated with a handheld device “Client”, the server having a first database (data store in 402) and the handheld device having a second database (data store in 202), the handheld device having an application to allow a user to access the second database, wherein the synchronization client to use the connection in a synchronization operation of the second database and the first database (Huang Col 1, lines 50-60) (Huang Col 7, lines 25-30) (Huang Col 7, lines 45-55) (Huang Col 8, lines 10-20) (Huang Col 8, lines 55-65) (Huang Col 9, lines 29-33);

receiving, from the server, first information indicative of a structure “format” of the first database (Huang Col 8, lines 20-35) (Huang Col 13, lines 35-45); This information is embedded in the sync logic that is past to synchronization proxy.

receiving, from the server, second information indicative of a version of the application from the server (Huang Col 13, lines 35-45) (Huang Col 14, lines 20-30); This information is embedded in the sync logic that is past to synchronization proxy.

sending, to the server, information of transactions performed on the second database by a user via the handheld device (Huang Col 13, lines 50-60);

receiving metadata from the server to update the application on the handheld device when the application has been updated since a previous synchronization operation (Huang Col 13, lines 40-50); and (metadata information that convey the adjustment moving from a high resolution to a Handheld Palm Pilot screen).

sending, to the server, filter information (Covered in claim 1);
filtering data based on the filter information (Covered in claim 1);
and receiving, from the server, the filtered data that has changed since the previous synchronization operation to update the second database (Covered in claim 1).

In claim 22, Huang combined with Boothby, teaches about a machine-readable medium of claim 22, wherein the instructions for performing the operation of receiving, from the server, one of the filtered data or a subset of the filtered data that has changed since the previous synchronization operation to update the second database, include instructions that when executed by the computer cause the computer to perform operations comprising (Covered in claim 1):

determining whether the structure of the first database has been updated since the previous synchronization operation (Huang Col 13, lines 50-60) (Huang Col 14, lines 20-30).

In claim 23, Huang combined with Boothby, teaches about a machine-readable medium of claim 22, wherein the instructions for performing the operation of receiving, from the server, one of the filtered data or a subset of the filtered data that has changed since the previous synchronization operation to update the second database, include instructions that when executed by the computer cause the computer to perform operations comprising (Covered in claim 1):

comparing the first information with information stored on the handheld device that is indicative of the structure of the first database when the previous synchronization operation was performed (Huang Col 13, lines 50-60) (Huang Col 14, lines 20-30).

In claim 24, Huang combined with Boothby, teaches about a machine-readable medium of claim 22, wherein the instructions for performing the operation of receiving, from the server, data extracted from the first database to update the second database, include instructions that when executed by the computer cause the computer to perform operations comprising:

receiving, from the server, a first set of data extracted from the first database when the structure of the first database has been updated since the previous synchronization operation, the first set of data including data that has not changed in the second database since the previous synchronization operation was performed (Huang Col 10, lines 15-25) (Huang Col 13, lines 35-45) (Huang Col 13, lines 50-60). Steps involve when updating email from a Lotus Notes source.

In claim 25, Huang combined with Boothby, teaches about a machine-readable medium of claim 22, wherein the instructions for performing the operation of receiving, from the server, data extracted from the first database to update the second database, include instructions that when executed by the computer cause the computer to perform operations comprising:

receiving, from the server, a second set of data extracted from the first database when the structure of the first database has not been updated since the previous synchronization operation, the second set of data not including data that has not changed in the second database since the previous synchronization operation was performed (Huang Col 10, lines 15-25) (Huang Col 13, lines 50-60). Steps involve when updating an address book application.

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In claim 26, Huang combined with Boothby, teaches about a machine-readable medium of claim 21, wherein the plurality of instructions further comprises instructions that when executed by the computer cause the computer to perform operations comprising:

determining whether the application has been updated since the previous synchronization operation (Huang Col 13, lines 50-60).

In claim 27, Huang combined with Boothby, teaches about a machine-readable medium of claim 26, wherein the instructions for performing the operation of determining whether the application has been updated since the previous synchronization operation, include instructions that when executed by the computer cause the computer to perform operations comprising:

comparing the second information with information stored on the handheld device that is indicative of the version of the application when the previous synchronization operation was performed (Huang Col 13, lines 50-60) (Huang Col 14, lines 20-30).

In claim 28, Huang combined with Boothby, teaches about a machine-readable medium of claim 21, wherein the instructions for performing the operation of sending, to the server, information of transactions performed on the second database, include instructions that when executed by the computer cause the computer to perform operations comprising:

receiving, from the server, an identifier of information of a last transaction received by the server (Huang Col 14, lines 20-30); and

sending, to the server, transaction information that includes an identifier for each transaction “update history” made after the last transaction received by the server (Huang Col 14, lines 20-30).

In claim 29, Huang combined with Boothby, teaches about a machine-readable medium of claim 28, wherein the instructions for sending to the server information of transactions performed on the second database, include instructions that when executed by the computer cause the computer to perform operations comprising:

receiving, from the server, error information when the server detects a transaction error (Huang Col 14, lines 35-40);

providing an indication of the error information to a user (Huang Col 14, lines 12-18);
and

receiving input from the user to process the transaction error (Huang Col 14, lines 12-18).

In claim 31, Huang combined with Boothby, teaches about a handheld device, comprising (Fig 2):

a local database (Fig 2, 202);

a user interface (key pad on handheld) coupled to the local database (Huang Col 1, lines 50-60);

a transaction recorder coupled to the local database, wherein the transaction recorder to record information related to changes made to the local database by a user of the handheld device via the user interface and to provide the recorded information to a server during a synchronization operation (Huang Col 14, lines 20-30);

a metadata importer (sync logic combine with transformation code) coupled to the user interface, wherein the metadata importer to receive metadata from the server during the

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synchronization operation, the metadata including information for updating the user interface (the display)(Huang Col 13, lines 40-50); and

a data importer coupled to the local database, wherein the data importer to receive data provided by the server during the synchronization operation, the data being a subset of data extracted from a main database based on visibility rules and filter, the subset representing a part of the extracted data that has changed since a previous synchronization operation by the server (Covered in claim 1) (Huang Col 13, lines 35-50).

In claim 33, Huang combined with Boothby, teaches about a handheld device of claim 31, wherein the data importer further to determine whether a structure of the main database has been changed since previous synchronization operation (Huang Col 13, lines 50-60).

In claim 34, Huang combined with Boothby, teaches about a handheld device of claim 33, wherein the data importer to receive an identifier corresponding to the structure of the main database and compare the received identifier with a stored identifier corresponding to the structure of the main database when the previous synchronization operation was performed (Huang Col 13, lines 40-45) (Huang Col 13, lines 50-60).

In claim 35, Huang combined with Boothby, teaches about a handheld device of claim 33, wherein the data importer to receive a first set of data extracted from the main database by the server when the structure of the main database has changed since the previous synchronization operation, the first set of data including data that has not changed in the local

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database since the previous synchronization operation was performed (Huang Col 10, lines 15-25) (Huang Col 13, lines 35-45) (Huang Col 13, lines 50-60). Steps involve when updating email from a Lotus Notes source.

In claim 36, Huang combined with Boothby, teaches about a handheld device of claim 33, wherein the data importer to receive a second set of data extracted from the main database by the server when the structure of the main database has not changed since the previous synchronization operation, the second set of data omitting data that has not changed in the local database since the previous synchronization operation was performed (Huang Col 10, lines 15-25) (Huang Col 13, lines 50-60). Steps involve when updating an address book application..

In claim 37, Huang combined with Boothby, teaches about a handheld device of claim 31, wherein the metadata importer to determine whether the user interface has been updated since the previous synchronization operation (Huang Col 13, lines 50-60).

In claim 38, Huang combined with Boothby, teaches about a handheld device of claim 37, wherein the metadata importer to receive version information of a most currently available user interface and to compare the received version information with version information corresponding to the user interface included in the handheld device (Huang Col 13, lines 50-60) (Huang Col 14, lines 20-30).

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In claim 39, Huang combined with Boothby, teaches about a handheld device of claim 31, wherein the transaction recorder to receive from the server an identifier of a last transaction recorded by the transaction for which transaction information was received by the server from the handheld device and to send to the server transaction information that includes an identifier for each transaction made after the last transaction (Huang Col 13, lines 50-60) (Huang Col 14, lines 20-30).

In claim 40, Huang combined with Boothby, teaches about a handheld device of claim 39, wherein the transaction recorder to receive from the server error information when the server detects a transaction error, to provide an indication of the error information to a user, and to receive input from the user to process the transaction error (Huang Col 14, lines 12-25) (Huang Col 14, lines 35-40).

In claim 41, Huang combined with Boothby, teaches about a method, comprising:

establishing a connection between a server "Replica Host" and a synchronization client "Synchronization Proxy" associated with a handheld device "Client", the server having a first database (data store in 402) and the handheld device having a second database (data store in 202), the handheld device having an application to allow a user to access the second database, wherein the synchronization client to use the connection in a synchronization operation of the second database and the first database (Huang Col 1, lines 50-60) (Huang Col 7, lines 25-30) (Huang Col 7, lines 45-55) (Huang Col 8, lines 10-20) (Huang Col 8, lines 55-65) (Huang Col 9, lines 29-33);

receiving first filter information (first application on the list) from the server, the first filter information including at least one business object “address book”, each business object having an associated set of filters (name, phone number, address, email, etc) (Huang Col 10, lines 10-25) (Huang Col 11, lines 35-45) (Boothby Paragraph 56, lines 1-11) (Covered in claim 1);

retrieving second filter information stored on the handheld device, the second filter information including at least one business object, each business object having an associated filter that was active during a previous synchronization operation (Huang Col 10, lines 10-25) (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60); (updating address book with new changes).

processing the first filter and second filter information to select active filters (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60); (This is the process of deciding which subset of data is most current).

storing the processed filter information to serve as the second filter information for a next synchronization operation (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60) ; and

sending the processed filter information to the server during the synchronization operation (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60).

In claim 43, Huang combined with Boothby, teaches about a method of claim 41, wherein processing the first filter and second filter information to select active filters, comprises:

for each business object included in the first filter information, selecting a default filter (transformation code) associated with the business object in the first filter information as the business objects active filter (Huang Col 10, lines 20-30) (Huang Col 11, lines 33-45);

each business object and associated filter in the second filter information that is also included in the first filter information, selecting the associated filter of the second filter information as the business object's active filter (Huang Col 13, lines 50-60).

In claim 44, Huang combined with Boothby, teaches about a method of claim 43, wherein selecting a default filter associated with the business object in the first filter information as the business object's active filter, comprises:

forming a linked list of each business object and its associated set of filters (Huang Col 3, lines 20-30) (Huang Col 11, lines 33-45); and

for each business object of the first filter information, selecting a first found default filter as the business object's active filter (Huang Col 10, lines 20-30) (Huang Col 11, lines 35-45).

In claim 45, Huang combined with Boothby, teaches about a method of claim 44, wherein selecting the associated filter of the second filter information as the business object's active filter, comprises:

for each business object of the second filter information, determining whether the business object and its associated filter in the second filter information is also present in the linked list (Huang Col 8, lines 40-45); and

for each business object and associated filter of the second filter information that is present in the linked list, selecting the associated filter of the second filter information as the active filter (Huang Col 13, lines 50-60).

In claim 46, Huang combined with Boothby, teaches about a system, comprising:
means for establishing a connection between a server “Replica Host” and a
synchronization client “Synchronization Proxy” associated with a handheld device “Client” , the
server having a first database (data store in 402) and the handheld device having a second
database (data store in 202), the handheld device having an application to allow a user to access
the second database, wherein the synchronization client to use the connection in a
synchronization operation of the second database and the first database (Huang Col 1, lines 50-
60) (Huang Col 7, lines 25-30) (Huang Col 7, lines 45-55) (Huang Col 8, lines 10-20) (Huang
Col 8, lines 55-65) (Huang Col 9, lines 29-33);

means for receiving first filter information (first application on the list) from the server,
the first filter information including at least one business object “address book”, each business
object having an associated set of filters (name, phone number, address, email, etc) (Huang Col
10, lines 10-25) (Huang Col 11, lines 35-45) (Boothby Paragraph 56, lines 1-11) (Covered in
claim 1);

means for retrieving second filter information stored on the handheld device, the second
filter information including at least one business object, each business object having an
associated filter that was active during a previous synchronization operation (Huang Col 10,
lines 10-25) (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60); (updating address book
with new changes).

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means for processing the first filter and second filter information to select active filters (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60); (This is the process of deciding which subset of data is most current).

means for storing the processed filter information to serve as the second filter information for a next synchronization operation (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60) ; and

means for sending the processed filter information to the server during the synchronization operation (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60).

In claim 48, Huang combined with Boothby, teaches about a method of claim 41, wherein the means for processing the first filter and second filter information to select active filters, comprises:

means for each business object included in the first filter information, selecting a default filter (transformation code) associated with the business object in the first filter information as the business objects active filter (Huang Col 10, lines 20-30) (Huang Col 11, lines 33-45);

means for each business object and associated filter in the second filter information that is also included in the first filter information, selecting the associated filter of the second filter information as the business object's active filter (Huang Col 13, lines 50-60).

In claim 49, Huang combined with Boothby, teaches about a method of claim 43, wherein means for selecting a default filter associated with the business object in the first filter information as the business object's active filter, comprises:

forming a linked list of each business object and its associated set of filters (Huang Col 3, lines 20-30) (Huang Col 11, lines 33-45); and
for each business object of the first filter information, selecting a first found default filter as the business object's active filter (Huang Col 10, lines 20-30) (Huang Col 11, lines 35-45).

In claim 50, Huang combined with Boothby, teaches about a method of claim 44, wherein the means for selecting the associated filter of the second filter information as the business object's active filter, comprises:

means for each business object of the second filter information, determining whether the business object and its associated filter in the second filter information is also present in the linked list (Huang Col 8, lines 40-45) (Boothby Paragraph 56, lines 1-11); and

means for each business object and associated filter of the second filter information that is present in the linked list, selecting the associated filter of the second filter information as the active filter (Huang Col 13, lines 50-60) (Boothby Paragraph 56, lines 1-11).

In claim 51, Huang combined with Boothby, teaches about a machine-readable medium having stored thereon a plurality of instructions that when executed by a computer cause the computer to perform operations include instructions that when executed by the computer cause the computer to perform operations comprising (Huang Col 26, lines 38-45):

establishing a connection between a server "Replica Host" and a synchronization client "Synchronization Proxy" associated with a handheld device "Client", the server having a first database (data store in 402) and the handheld device having a second database (data store in 202), the handheld device having an application to allow a user to access the second database,

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wherein the synchronization client to use the connection in a synchronization operation of the second database and the first database (Huang Col 1, lines 50-60) (Huang Col 7, lines 25-30) (Huang Col 7, lines 45-55) (Huang Col 8, lines 10-20) (Huang Col 8, lines 55-65) (Huang Col 9, lines 29-33);

receiving first filter information (first application on the list) from the server, the first filter information including at least one business object “address book”, each business object having an associated set of filters (name, phone number, address, email, etc) (Huang Col 10, lines 10-25) (Huang Col 11, lines 35-45) (Boothby Paragraph 56, lines 1-11) (Covered in claim 1);

retrieving second filter information stored on the handheld device, the second filter information including at least one business object, each business object having an associated filter that was active during a previous synchronization operation (Huang Col 10, lines 10-25) (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60); (updating address book with new changes).

processing the first filter and second filter information to select active filters (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60); (This is the process of deciding which subset of data is most current).

storing the processed filter information to serve as the second filter information for a next synchronization operation (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60) ; and

sending the processed filter information to the server during the synchronization operation (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60).

In claim 53, Huang combined with Boothby, teaches about a machine-readable medium of claim 51, wherein the instructions for performing the operation of processing the first filter and second filter information to select active filters include instructions that when executed by the computer cause the computer to perform operations comprising (Huang Col 26, lines 38-45):

for each business object included in the first filter information, selecting a default filter (transformation code) associated with the business object in the first filter information as the business objects active filter (Huang Col 10, lines 20-30) (Huang Col 11, lines 33-45);

each business object and associated filter in the second filter information that is also included in the first filter information, selecting the associated filter of the second filter information as the business object's active filter (Huang Col 13, lines 50-60) (Boothby Paragraph 56, lines 1-11) (Covered in claim 1).

In claim 54, Huang combined with Boothby, teaches about a machine-readable medium of claim 53, wherein the instructions for performing the operation of selecting a default filter associated with the business object in the first filter information as the business object's active filter include instructions that when executed by the computer cause the computer to perform operations comprising (Huang Col 26, lines 38-45):

forming a linked list of each business object and its associated set of filters (Huang Col 3, lines 20-30) (Huang Col 11, lines 33-45); and

for each business object of the first filter information, selecting a first found default filter as the business object's active filter (Huang Col 10, lines 20-30) (Huang Col 11, lines 35-45).

In claim 55, Huang combined with Boothby, teaches about a machine-readable medium of claim 54, wherein the instructions for performing the operation of selecting the associated filter of the second filter information as the business object's active filter include instructions that when executed by the computer cause the computer to perform operations comprising (Huang Col 26, lines 38-45):

for each business object of the second filter information, determining whether the business object and its associated filter in the second filter information is also present in the linked list (Huang Col 8, lines 40-45); and

for each business object and associated filter of the second filter information that is present in the linked list, selecting the associated filter of the second filter information as the active filter (Huang Col 13, lines 50-60).

In claim 56, Huang combined with Boothby, teaches about a handheld device, comprising:

a memory (Fig 2, "storage memory");

a local database (Fig 2, 202);

a user interface (key pad on handheld) coupled to the local database (Huang Col 1, lines 50-60);

a transaction recorder coupled to the local database, wherein the transaction recorder to record information related to changes made to the local database by a user of the handheld device via the user interface and to provide the recorded information to a server during a synchronization operation (Huang Col 14, lines 20-30);

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a data importer “sync handler” (Fig 2, 206) coupled to the local database, wherein the data importer to receive data provided by the server during the synchronization operation, and to store the data in the local database, the data being extracted from a main database and filtered by the server before being received by the data importer (Huang Col 8, lines 55-65) (Huang Col 11, lines 5-10) (Huang Col 11, lines 33-45) (Huang Col 13, lines 35-50).

a filter processor coupled to the memory, wherein the filter processor to (Huang Col 11, lines 33-45):

receive first filter information from the server, the first filter information including at least one business object “address book”, each business object having an associated set of filters (name, address, email, etc) (Huang Col 11, lines 33-45) (Boothby Paragraph 56, lines 1-11) (Covered in claim 1);

retrieve second filter information stored in the memory, the second filter information including at least one business object, each business object having an associated filter that was active during a previous synchronization operation (Huang Col 11, lines 35-45) (Huang Col 13, lines 50-60) (Boothby Paragraph 56, lines 1-11) (Covered in claim 1);

process the first filter and second filter information to select active filters (Huang Col 13, lines 50-60);

store the processed filter information in the memory to serve as the second filter information for a next synchronization operation (Huang Col 13, lines 50-60); and

send the processed filter information to the server during the synchronization operation, the processed filter information to be used by the server in filtering the data extracted from the main database (Huang Col 13, lines 50-60).

In claim 58, Huang combined with Boothby, teaches about a handheld device of claim 54, wherein in processing the first filter and second filter information to select active filters, the filter processor to:

for each business object included in the first filter information, select a default filter (transformation code) associated with the business object in the first filter information as the business objects active filter (Huang Col 10, lines 20-30) (Huang Col 11, lines 33-45);

for each business object and associated filter in the second filter information that is also included in the first filter information, select the associated filter of the second filter information as the business object's active filter (Huang Col 13, lines 50-60)..

In claim 59, Huang combined with Boothby, teaches about a handheld device of claim 58, wherein in selecting a default filter associated with the business object in the first filter information as the business object's active filter, the filter processor to:

form a linked list of each business object and its associated set of filters (Huang Col 3, lines 20-30) (Huang Col 11, lines 33-45); and

for each business object of the first filter information, select a first found default filter as the business object's active filter (Huang Col 10, lines 20-30) (Huang Col 11, lines 35-45).

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In claim 60, Huang combined with Boothby, teaches about a handheld device of claim 59, wherein in selecting the associated filter of the second filter information as the business object's active filter, the filter processor to:

for each business object of the second filter information, determine whether the business object and its associated filter in the second filter information is also present in the linked list (Huang Col 8, lines 40-45); and

for each business object and associated filter of the second filter information that is present in the linked list, selecting the associated filter of the second filter information as the active filter (Huang Col 13, lines 50-60).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 42, 47, 52 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,477,543 by Huang and US Patent Application Publication No. 2001/0005849 by Boothby et al in view of US Patent No. 6,564,263 by Bergman et al.

In claim 42, Huang combined with Boothby, teaches all the limitation as to the processing of a first and second filter but does not explicitly teach about using XML in accomplishing the task.

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Bergman teaches about a method to process multimedia using XML (Huang Col 14, lines 5-30).

In Huang's invention, handheld applications are synchronized by using sync logics and transformation codes (process codes) (Huang Col 8, lines 10-20). The many variation of handheld devices and their applications required a large number of different process codes, which was a burden to manage. As a result, Hung indicated the need for improvement (Huang Col 2, lines 5-25). Bergman teaches an improve way of reducing the number of process codes variations across multiple platforms by using the portability feature of XML (Huang Col 14, lines 10-20). With the portability feature, the same process code can be reused on different platform, which eliminated the need for individual custom-made code. The reduction in the number of process codes simplified the task of managing them.

It would have been obvious at the time of the invention for some one of ordinary skill to use the portability feature of XML and its additional benefit to reduce the number of process codes and the complexity that is need to manage them.

In claim 47, the system of claim 46, wherein the means for processing the first and second filter information comprises:

means for forming an XML document that includes each business object and its associated active filter (Covered in claim 42).

In claim 52, the machine-readable medium of claim 51, wherein the instructions for performing the operation of processing the first and second filter information include instructions that when executed by the computer cause the computer to perform operations comprising:

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forming an XML document that includes each business object and its associated active filter (covered in claim 42).

In claim 57, the handheld device of claim 54, wherein the filter processor to form an XML document that includes each business object and its associated active filter (covered in claim 42).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2005/0055382 by Ferrat et al, teaches about a universal synchronization.

US 2002/0,029,227 by Multer et al, teaches about a management server for a synchronization system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. A. Delgado whose telephone number is (571) 272-3926. The examiner can normally be reached on 7.30 AM - 5.30PM.

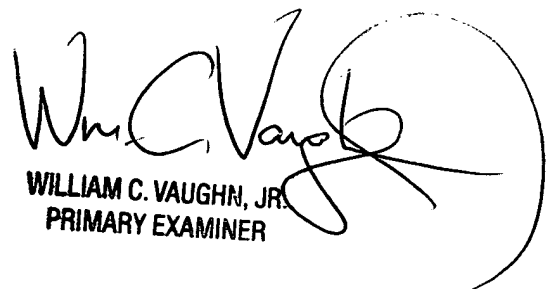
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn Jr. can be reached on (571)272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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